

Mental Subtraction Methods

Method 1: Subtract in two parts	
$53 - \underline{8}$ $= 53 - \underline{3} - \underline{5}$ $= 50 - 5 = 45$	$72 - \underline{6}$ $= 72 - \underline{2} - \underline{4}$ $= 70 - 4 = 66$
<p>Subtract 8 in two parts: first 3, then 5. In other words, first subtract to the previous whole ten, then the rest.</p>	<p>Subtract 6 in two parts: first 2, then 4. In other words, first subtract to the previous whole ten, then the rest.</p>

1. Subtract the elevated number in parts: first subtract to the previous whole ten; then the rest.

a. $(51 - \underline{1}) - \underline{4} = \underline{\quad}$ 	b. $(62 - \underline{\quad}) - \underline{\quad} = \underline{\quad}$ 	c. $(33 - \underline{\quad}) - \underline{\quad} = \underline{\quad}$
d. $(92 - \underline{\quad}) - \underline{\quad} = \underline{\quad}$ 	e. $(75 - \underline{\quad}) - \underline{\quad} = \underline{\quad}$ 	f. $(63 - \underline{\quad}) - \underline{\quad} = \underline{\quad}$
g. $(35 - \underline{\quad}) - \underline{\quad} = \underline{\quad}$ 	h. $(74 - \underline{\quad}) - \underline{\quad} = \underline{\quad}$ 	i. $(52 - \underline{\quad}) - \underline{\quad} = \underline{\quad}$

2. First subtract the balls that are not in the ten-groups.

a. $51 - 7 = \underline{\quad}$ $51 - 5 = \underline{\quad}$ $51 - 3 = \underline{\quad}$ $51 - 6 = \underline{\quad}$ 	b. $42 - 4 = \underline{\quad}$ $42 - 5 = \underline{\quad}$ $42 - 3 = \underline{\quad}$ $42 - 6 = \underline{\quad}$
c. $34 - 8 = \underline{\quad}$ $34 - 5 = \underline{\quad}$ $34 - 7 = \underline{\quad}$ $34 - 9 = \underline{\quad}$ 	d. $65 - 6 = \underline{\quad}$ $65 - 9 = \underline{\quad}$ $65 - 7 = \underline{\quad}$ $65 - 8 = \underline{\quad}$

Method 2: Use known subtraction facts

Since $14 - 6 = 8$, we know that the answer to $74 - 6$ will end in 8, but it will be in the sixties (sixty-something). So it is 68.

Since $15 - 8 = 7$, we know that the answer to $55 - 8$ will end in 7, but it will be in the forties (forty-something). So it is 47.

3. Subtract. Compare the problems.

a. $18 - 4 = \underline{\quad}$ $48 - 4 = \underline{\quad}$ $78 - 4 = \underline{\quad}$	b. $14 - 9 = \underline{\quad}$ $24 - 9 = \underline{\quad}$ $44 - 9 = \underline{\quad}$	c. $17 - 8 = \underline{\quad}$ $27 - 8 = \underline{\quad}$ $37 - 8 = \underline{\quad}$	d. $12 - 9 = \underline{\quad}$ $52 - 9 = \underline{\quad}$ $32 - 9 = \underline{\quad}$
e. $11 - 6 = \underline{\quad}$ $51 - 6 = \underline{\quad}$ $71 - 6 = \underline{\quad}$	f. $15 - 9 = \underline{\quad}$ $65 - 9 = \underline{\quad}$ $45 - 9 = \underline{\quad}$	g. $13 - 8 = \underline{\quad}$ $33 - 8 = \underline{\quad}$ $93 - 8 = \underline{\quad}$	h. $16 - 8 = \underline{\quad}$ $86 - 8 = \underline{\quad}$ $36 - 8 = \underline{\quad}$

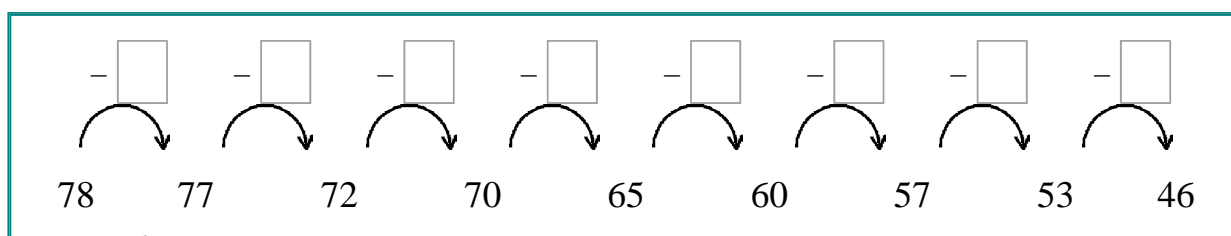
4. Now you think of the “helping problem” yourself.

a. $34 - 5 = \underline{\quad}$ $73 - 7 = \underline{\quad}$	b. $65 - 9 = \underline{\quad}$ $36 - 8 = \underline{\quad}$	c. $51 - 8 = \underline{\quad}$ $93 - 6 = \underline{\quad}$	d. $62 - 7 = \underline{\quad}$ $83 - 8 = \underline{\quad}$
---	---	---	---

5. a. Terry is on page 56 of her book. The book has a total of 92 pages. How many pages does she have left to read?

b. Terry reads 9 pages more. Now how many pages does she have left to read?

6. Find what was subtracted.



Method 3: Add.

You can “add backwards”. This works well if the two numbers are close to each other.

Instead of subtracting, think how much you need to add to the number being subtracted (the subtrahend) in order to get the number you're subtracting from (the minuend).

Think: $84 + \square = 92$

(84 and how many more makes 92?)

$$\begin{array}{r} + \square \\ \curvearrowright \\ 92 - 84 = \underline{\quad} \end{array}$$

Think: $25 + \square = 75$

(25 and how many more makes 75?)

$$\begin{array}{r} + \square \\ \curvearrowright \\ 75 - 25 = \underline{\quad} \end{array}$$

7. To find these differences, think of adding more.

$$\begin{array}{r} +8 \\ \curvearrowright \\ \text{a. } 92 - 84 = \underline{\quad} \end{array}$$

Think: $84 + \underline{\quad} = 92$

$$\begin{array}{r} + \underline{\quad} \\ \curvearrowright \\ \text{b. } 51 - 49 = \underline{\quad} \end{array}$$

Think: $49 + \underline{\quad} = 51$

$$\begin{array}{r} + \underline{\quad} \\ \curvearrowright \\ \text{c. } 76 - 69 = \underline{\quad} \end{array}$$

Think: $69 + \underline{\quad} = 76$

$$\begin{array}{r} + \underline{\quad} \\ \curvearrowright \\ \text{d. } 43 - 35 = \underline{\quad} \end{array}$$

$$\begin{array}{r} + \underline{\quad} \\ \curvearrowright \\ \text{e. } 70 - 61 = \underline{\quad} \end{array}$$

$$\begin{array}{r} + \underline{\quad} \\ \curvearrowright \\ \text{f. } 84 - 78 = \underline{\quad} \end{array}$$

g. $32 - 28 = \underline{\quad}$

j. $90 - 83 = \underline{\quad}$

m. $100 - 95 = \underline{\quad}$

h. $22 - 14 = \underline{\quad}$

k. $64 - 56 = \underline{\quad}$

n. $64 - 55 = \underline{\quad}$

i. $53 - 46 = \underline{\quad}$

l. $72 - 65 = \underline{\quad}$

o. $44 - 37 = \underline{\quad}$

Puzzle Corner

The triangle and square represent “mystery numbers”.

Find what the mystery numbers are in each case.

You can “guess and check”!

a.

$$\triangle + \triangle + 10 = 34$$

$$\triangle = \underline{\quad}$$

b. $\square + \triangle = 22$

$$\square - \triangle = 4$$

$$\triangle = \underline{\quad}, \square = \underline{\quad}$$

c. $\square + \triangle = 22$

$$\square + \square = 36$$

$$\triangle = \underline{\quad}, \square = \underline{\quad}$$